DETAILED ACTION

1.   This office action is in response to applicant's amendment filed on March 10, 2010.

2.   Claims 1-6 and 8-12 are pending in this application.

3.   Applicant's arguments in respect to the new issues of Claims 1-6 and 8-12 have been
considered but they are not fully persuasive.

Response to Arguments

4.   Applicant's arguments are considered moot based on the new grounds of rejection as set
forth below.

Examiner Notes

5.   Examiner cites particular columns and line numbers in the references as applied to the
claims below for the convenience of the applicant. Although the specified citations are
representative of the teachings in the art and are applied to the specific limitations within the
individual claim, other passages and figures may apply as well. It is respectfully requested that,
in preparing responses, the applicant fully consider the references in entirety as potentially
teaching all or part of the claimed invention, as well as the context of the passage as taught by
the prior art or disclosed by the examiner.

Claim Rejections - 35 USC § 101

6.   35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or
any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and
requirements of this title.

7.   **Claims 1-6** are rejected under 35 U.S.C. 101 because the claimed invention is directed
to non-statutory subject matter because of the following reason:

The claims fail to place the invention squarely within one statutory class of invention. The
instant specification has not specifically defined the term "information recording medium" and
absent a definition, the term can broadly and reasonably be interpreted to include signals.
Paragraph 66 of the written description defines "information recording medium" by example, but
is absent a specific definition. As defined by the courts, signals do not fall within any of the four
statutory categories of invention, see *In re Nuijten, 500 F.3d 1346, 1357 (Fed. Cir. 2007)*.

8.   **Claim 12** is rejected under 35 U.S.C. 101 because the claimed invention is directed to
non-statutory subject matter because of the following reason:

The claim fails to place the invention squarely within one statutory class of invention. The
instant specification has not specifically defined the term "computer readable storage medium"
and absent a definition, the term can broadly and reasonably be interpreted to include signals.
As defined by the courts, signals do not fall within any of the four statutory categories of
invention, see *In re Nuijten, 500 F.3d 1346, 1357 (Fed. Cir. 2007)*. The examiner suggests
changing the "computer readable storage medium" to "non-transitory computer readable storage
medium" as is current USPTO practice.

Claim Rejections - 35 USC § 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness
rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or
described as set forth in section 102 of this title, if the differences between the subject
matter sought to be patented and the prior art are such that the subject matter as a whole

would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10.   **Claims 1-2 and 6** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. (US Patent 6289102 B1, published September 11, 2001) hereinafter referred to as Ueda in view of Shimoda (US Patent 6381202 B1, file October 25, 2000) and further in view of Applicant's Admitted Prior Art (AAPA) pages 1-7.

As per claim 1, Ueda discloses An information recording medium storing encrypted content, comprising: a first recording area including content and an entity code that is set for each entity included in a manufacturing route of said information recording medium, wherein the first recording area includes an encryption processing unit that is encrypted by a key generated based on a seed that provides encryption processing key generating information for each encryption processing unit, wherein said entity code is stored in an encrypted area that is encrypted by said key generated based on said seed, said encrypted area not overlapping an area in which said seed is recorded **(Ueda, col. 3 line 45 – col. 4 line 42, teaches a medium storing encrypted content. This encrypted content is encrypted with a second content key and stored on the medium. The second content key is encrypted by a first content key which is also stored on the medium. The encrypted content is later retrieved by decrypting the content using the second key which is decrypted by the first key. Ueda, Figure 3, also teaches the use of a seed to generate keys.)**

However, Ueda does not specifically teach wherein said entity code includes an authoring studio code identifying an authoring studio and a disc manufacturer code identifying a manufacturer.

Shimoda discloses wherein said entity code includes a disc manufacturer code (DMC) **(Shimoda, col. 4 lines 36-65 and Figure 4, teaches the use of multiple manufacturing codes.)**

Ueda and Shimoda are analogous art because they are from the same field of endeavor of recording information onto mediums for later retrieval. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Ueda by adding the teachings of Shimoda because this would allow disc manufacturers to put a manufacturing code on all of their discs to prevent piracy. This would result in the disc manufacturing code being stored on the disc in encrypted form and later decrypted to be used to prevent the disc from being copied illegally.

However, Ueda in view of Shimoda does not specifically disclose including an authoring studio code on the disc.

AAPA discloses including an authoring studio code (ASC) **(AAPA, page 4, teaches that authoring studios are used in the manufacturing process of a disc.)**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Ueda and Shimoda by adding an authoring studio code on the disc as this would better identify the disc manufacturer. It would have been an obvious design choice to include either an authoring studio code, disc manufacturer code, or both on the disc to be able to later identify the disc manufacturer.

As per claim 2, Ueda in view of Shimoda and AAPA discloses The information recording medium according to claim 1 **[See rejection to claim 1 above]**, wherein said encryption processing unit is set as a collective data area including a plurality of packets and said seed is set as data having a predetermined number of bits from start data of a start packet of said encryption processing unit; and said entity code is stored as a payload of each of said plurality of packets and stored in a data area not overlapping an area of bits constituting said seed **(Ueda, col. 3 line 45 – col. 4 line 42, teaches the data being stored on the medium in a plurality of sectors. Ueda also teaches the second key being stored as the payload of decrypting by the first key and being used to decrypt the content data. Ueda, Figure 3, teaches the seed being stored on disk in a certain area of the medium.)**

As per claim 6, Ueda in view of Shimoda and AAPA discloses The information recording medium according to claim 1 **[See rejection to claim 1 above]**, wherein said information recording medium includes (1) a first seed, which is key generating information set for said encryption processing unit, (2) an encrypted second seed, which is key generating information encrypted based on a first block key generated by said first seed, and (3) encrypted content and an encrypted entity code encrypted based on a second block key generated based on said second seed **(Ueda, col. 3 line 45 – col. 4 line 42, teaches the second key being encrypted by the first key and the content being encrypted by the second key. The content and the second key are stored in encrypted for whereas the first key is stored in clear text. Ueda, Figure 4, teaches seeds being used to generate keys.)**

11.   **Claims 3-5, and 8-12** as best understood are rejected under 35 U.S.C. 103(a) as being

unpatentable over Ueda in view of Shimoda and AAPA and further in view of Teunissen (US

Patent 6512882 B1, filed May 7, 1999).

As per claim 3, Ueda in view of Shimoda and AAPA discloses The information recording

medium according to claim 1 **[See rejection to claim 1 above]**.

However, Ueda does not teach the storing of a program map table.

Teunissen discloses wherein said entity code is stored in a program map table (PMT)

specified by the MPEG standard and said entity code provides data constituting a start packet of

a plurality of divided packets storing said program map table (PMT) in a program information

area of said program map table (PMT) **(Teunissen, col. 3 line 1, teaches the storing of a**

program map table on the medium.)

Ueda and Teunissen are analogous art because they are from the same field of endeavor

of storing data on a medium to be read later. It would have been obvious to one of ordinary skill

in the art at the time the invention was made to modify the invention of Ueda by adding the

teachings of Teunissen because this would have been expected in the art. Ueda, col. 1 lines 26-

38, teaches the use of the MPEG standard in recording data onto a medium. The use of the

PMT with the MPEG standard is well known and expected in the art.

As per claim 4, Ueda in view of Shimoda, AAPA, and Teunissen discloses The

information recording medium according to claim 3 **[See rejection to claim 3 above]**, wherein

said start packet of said plurality of divided packets is a transport stream packet having a

payload of 183 bytes and said entity code is stored as data within 183 bytes from start data of

said program map table (PMT) in said program information area of said program map table

(PMT) **(Teunissen, Figure 2, teaches the packet payload being 184 bytes. Making the**

packet payload be 183 bytes would have been an obvious design choice.)

As per claim 5, Ueda in view of Shimoda and AAPA discloses The information recording

medium according to claim 1 **[See rejection to claim 1 above]**.

However, Ueda does not teach the storing of a program map table.

Teunissen discloses wherein said entity code is stored in a program map table (PMT)

specified by the MPEG standard; and said program map table (PMT) is stored as a payload of

each of a plurality of transport stream packets in a divided manner **(Teunissen, col. 3 line 1,**

teaches the storing of a program map table on the medium.), and each of said plurality of

transport stream packets is attached with timestamp information to be stored in said information

recording medium as a source packet in a distributed manner **(Teunissen, Figure 1, teaches**

the packets having a time code.)

Ueda and Teunissen are analogous art because they are from the same field of endeavor

of storing data on a medium to be read later. It would have been obvious to one of ordinary skill

in the art at the time the invention was made to modify the invention of Ueda by adding the

teachings of Teunissen because this would have been expected in the art. Ueda, col. 1 lines 26-

38, teaches the use of the MPEG standard in recording data onto a medium. The use of the

PMT with the MPEG standard is well known and expected in the art.

As per claims 8 and 12, Ueda discloses A data processing method for generating data to be written to an information recording medium, comprising: setting a position at which an entity code for an entity included in a manufacturing route of said information recording medium is to be recorded and setting said entity code **(Ueda, col. 3 line 45 – col. 4 line 42, teaches a second key being used to encrypt data. The second key is stored in encrypted form and encrypted by a first key.)**; generating a plurality of packets in which entity code is stored in a divided manner; arranging said plurality of packets in a content stored packet sequence in a distributed manner **(Ueda, col. 3 line 45-col. 4 line 42, teaches the data being broken into sectors to be stored on the medium.)**; and encrypting data included in an encryption processing unit by use of a key generated based on a seed, which is encryption processing key generating information that is set for said encryption processing unit **(Ueda, col. 3 line 45 – col. 4 line 42, teaches a second key being used to encrypt data. The second key is stored in encrypted for and encrypted by a first key. Ueda, Figure 4, teaches using a seed to generate keys.)**, wherein said setting step includes executing control such that said entity code is included in an encrypted area encrypted by a key generated based on said seed without overlapping an area in which said seed is set **(Ueda, col. 3 line 45 – col. 4 line 42, teaches a second key being used to encrypt data. The second key is stored in encrypted for and encrypted by a first key.)**

However, Ueda does not specifically teach wherein said entity code includes an authoring studio code identifying an authoring studio and a disc manufacturer code identifying a manufacturer.

Shimoda discloses wherein said entity code includes an authoring studio code (ASC) and a disc manufacturer code (DMC) **(Shimoda, col. 4 lines 36-65 and Figure 4, teaches the use of multiple manufacturing codes.)**

Ueda and Shimoda are analogous art because they are from the same field of endeavor of recording information onto mediums for later retrieval. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Ueda by adding the teachings of Shimoda because this would allow disc manufacturers to put a manufacturing code on all of their discs to prevent piracy. This would result in the disc manufacturing code being stored on the disc in encrypted form and later decrypted to be used to prevent the disc from being copied illegally.

However, Ueda in view of Shimoda does not specifically disclose including an authoring studio code on the disc.

AAPA discloses including an authoring studio code (ASC) **(AAPA, page 4, teaches that authoring studios are used in the manufacturing process of a disc.)**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Ueda and Shimoda by adding an authoring studio code on the disc as this would better identify the disc manufacturer. It would have been an obvious design choice to include either an authoring studio code, disc manufacturer code, or both on the disc to be able to later identify the disc manufacturer.

However, Ueda in view of Shimoda and AAPA does not specifically teach that the data in stored in a program map table.

Teunissen discloses wherein said entity code is stored in a program map table

(Teunissen, col. 3 line 1, teaches the storing of a program map table on the medium.)

Ueda and Teunissen are analogous art because they are from the same field of endeavor

of storing data on a medium to be read later. It would have been obvious to one of ordinary skill

in the art at the time the invention was made to modify the invention of Ueda by adding the

teachings of Teunissen because this would have been expected in the art. Ueda, col. 1 lines 26-

38, teaches the use of the MPEG standard in recording data onto a medium. The use of the

PMT with the MPEG standard is well known and expected in the art.

As per claim 9, Ueda in view of Shimoda, AAPA, and Teunissen discloses The data

processing method according to claim 8 **[See rejection to claim 8 above]**, wherein said

encryption processing unit is a collective data area of a plurality of packets, said seed is data

having a predetermined number of bits from start data of a start packet of said encryption

processing unit; and said setting step includes setting said entity code to a data area that does

not overlap an area of bits constituting said seed **(Ueda, col. 3 line 45 – col. 4 line 42, teaches**

the data being stored on the medium in a plurality of sectors. Ueda also teaches the

second key being stored as the payload of decrypting by the first key and being used to

decrypt the content data. Ueda, Figure 3, teaches the seed being stored on disk in a

certain area of the medium.)

As per claim 10, Ueda in view of Shimoda, AAPA, and Teunissen discloses The data

processing method according to claim 8 **[See rejection to claim 8 above]**, wherein said setting

step comprises setting said entity code in a program information area of said program map table

(PMT) specified by the MPEG standard and to a position of data constituting a start packet of a

plurality of divided packets storing said program map table (PMT) **(Teunissen, col. 3 line 1,**

teaches the storing of a program map table on the medium.)

As per claim 11, Ueda in view of Shimoda, AAPA, and Teunissen discloses The

information processing method according to claim 10 **[See rejection to claim 10 above]**,

wherein said start packet of said plurality of divided packets is a transport stream packet having

a payload of 183 bytes and said setting step comprises setting said entity code as data in said

program information area of said program map table (PMT) and within 183 bytes from start data

of said program map table (PMT) **(Teunissen, Figure 2, teaches the packet payload being**

184 bytes. Making the packet payload be 183 bytes would have been an obvious design

choice.)

Conclusion

12.   Any inquiry concerning this communication or earlier communications from the examiner

should be directed to John B. King whose telephone number is (571)270-7310. The examiner

can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM est..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kim Vu can be reached on (571)272-3859. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

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would like assistance from a USPTO Customer Service Representative or access to the

automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John B King/
Examiner, Art Unit 2435
/Kimyen Vu/
Supervisory Patent Examiner, Art Unit 2435